

## Abstract

The present invention relates to a drive circuit for an LED array which comprises a first LED cluster (40) and at least one second LED cluster (42; 44), the switch (S1, S2, S3) being arranged in series with each LED cluster (40, 42, 44), and each LED cluster (40, 42, 44) having a supply terminal. A control loop (46) is designed to drive the switch (S1) of the first LED cluster (42) so as to achieve a constant mean value of the current ( $I_{LED}$ ) flowing through the first LED cluster (42), the control loop (46) being designed for also driving the switches of the further LED clusters (42, 44). The drive circuit also comprises a total current detection device ( $R_{Mess}$ ) with the aid of which it is possible to determine an actual magnitude ( $U_{Mess}$ ) which corresponds to the sum of the currents through at least two, in particular through all of the second LED clusters (42, 44). A comparison unit (50) compares the actual magnitude ( $U_{Mess}$ ) with a predefinable desired magnitude ( $U_{OL}$ ).

(Figure 3)